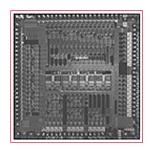


# **BCM2002X**





# BCM2002X 2.4 GHZ BLUETOOTH™ FRAC-N RADIO

### BCM2002X FEATURES

- BQB qualified Bluetooth V1.1 radio transceiver
- Fractional-N frequency generation
  - Supports 12, 13, 19.2, 19.68, or 19.8 MHz reference frequencies
- Differential RF interface
- Typical -80 dBm receiver sensitivity under high interference environments
- Typical +3 dBm RF output power satisfied requirements for Class 2 operation
- Strong spurious emissions performance
  - Minimal filtering required to meet mobile phone integration requirements
- Excellent blocking performance
  - Minimal filtering required to meet mobile phone integration requirements
- Highly linear receiver exceeds Bluetooth specifications
- Meets FCC radiated emissions requirements without RF filtering or shielding
- Low power consumption
- Built-in digital RSSI
- Programmable PA gain
- 8mm x 8mm, 52-pin LPCC standard package

### SUMMARY OF BENEFITS

- Ideal for mobile phone integration
  - Designed to handle the very harsh environment of mobile phones while maintaining high radio performance and optimizing overall phone performance.
  - In-band and out-of-band blocking performance significantly exceeds Bluetooth requirements.
  - Fractional-N frequency generation technology eliminates the need for a dedicated reference crystal, which is an additional source of RF noise.
- Monolithic implementation in a standard digital CMOS process with minimal external components provides a manufacturable low-cost Bluetooth RF/IF solution.
- On-chip auto-calibration eliminates process variation across components and mitigates temperature variation, enabling the chips to be used in high-volume mobile phone applications.
- The BlueRF RXMODE2 unidirectional baseband interface supports connection to a wide variety of baseband devices.
- Applications:
  - GSM, CDMA, GPRS, and WCDMA mobile phones

#### **BCM2002X BlueRF Frac-N Radio Application Example**

